

## Association of age with attention and executive function mediated by SES

<sup>1</sup>Melissa H. Kitner-Triolo, Ph.D., <sup>2</sup>Janet E. Donohue, MPH., <sup>3</sup>Michele K. Evans, M.D., and <sup>1</sup>Alan B. Zonderman, Ph.D.

Some investigators attribute racial differences in neuropsychological performance to disparities in educational opportunities and cultural acculturation, both of which are related to socioeconomic status (SES). The present study examined differences in the pattern of the correlations of age with measures of attention and executive function in three adult samples of middle-class Whites, middle-class Blacks, and low SES Blacks matched for age and sex. Subjects were 170 White (BLSA-W) and 171 Black (BLSA-B) participants from the Baltimore Longitudinal Study of Aging, and 169 participants from the Healthy Aging in Nationally Diverse Longitudinal Samples (HANDLS) residing in low SES Baltimore City neighborhoods. Participants were administered the Wechsler Adult Intelligence Test (WAIS): Digits Forwards and Backwards, and the Mini-Mental State Examination (MMSE).

After eliminating participants with MMSE scores  $< 24$ , there were significant associations between age and digits forward (total & maximum span) in BLSA-W and BLSA-B, but not in HANDLS. Age was also associated with digits backward in BLSA-W, but had no such significant relationship in BLSA-B and HANDLS. There were no significant differences in education between BLSA-W and BLSA-B participants (mean = 16 years), but both had significantly more years of education than HANDLS participants (mean = 12 years). Despite these differences in educational attainment, the pattern of correlations for digits forward and digits backward were unchanged after adjusting for years of education. These results suggest that age-associated changes in cognitive performance may not differ as a function of race but may differ as a function of socioeconomic status.

<sup>1</sup>National Institute on Aging, Intramural Research Program, Laboratory of Personality & Cognition, National Institutes of Health

<sup>2</sup>National Institute on Aging, Intramural Research Program, Research Resources Branch, National Institutes of Health

<sup>3</sup>National Institute on Aging, Intramural Research Program, Health Disparities Section, Clinical Research Branch, National Institutes of Health